

REMARKS

The present application was filed on February 22, 2002 with claims 1 through 26. Claims 1 through 26 are presently pending in the above-identified patent application. Claims 2, 4-5, 7-9, and 11-17 are proposed to be amended herein. Claims 1, 5 3 and 18-26 are proposed to be amended herein.

In the Office Action, the specification and claim 4 were objected to due to indicated informalities, and claims 1-17 and 26 were rejected under 35 U.S.C. §101 because the claimed invention is directed to non-statutory subject matter and under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out 10 and distinctly claim the subject matter which applicant regards as the invention. The Examiner also rejected claims 1, 2, 5, and 12 under 35 U.S.C. §102(b) as being anticipated by Myers et al. (Science, Vol. 287, Pages 2196-2204, March 24, 2000). The Examiner rejected claims 1, 2, 5, 6, 12-14, 16, and 17 on the ground of non-statutory 15 obviousness-type double patenting as being unpatentable over claims 1, 3-5, 20, and 21 of United States Patent Number 6,571,230

Applicants are submitting the requested Parida paper cited on page 14, lines 14-17, simultaneously herewith.

Introduction

Although not expressly indicated as allowable, Claim 4 was merely 20 "objected to." Applicants have addressed all of the objections with regard to claim 4.

In addition, Applicants have amended claim 4 to rewrite claim 4 in independent form including all of the limitations of the base claim 1 and intervening claim 3. In addition, the remaining dependent claims have been amended to depend from 25 claim 4. No new matter is introduced. Corresponding Independent claims 16 and 17 have also been amended to incorporate the limitations of claims 3 and 4

Formal Objections

The specification and claim 4 were objected to due to indicated 30 informalities. In particular, the Examiner asserts that the abstract should not exceed 150 words in length and should be solely drawn to a process. Regarding claim 4, the Examiner asserts that the phrase "augmenting a motifs" is incorrect.

The abstract and claim 4 have been amended to address the Examiner's

concerns and Applicants respectfully request that the cited objections be withdrawn.

Section 101 Rejection

Claims 1-17 and 26 were rejected under 35 U.S.C. §101 because the claimed invention is directed to non-statutory subject matter. In particular, the Examiner asserts that at least one embodiment does not produce a tangible result.

The Supreme Court has stated that the "[t]ransformation and reduction of an article 'to a different state or thing' is the clue to patentability of a process claim." *Gottschalk v. Benson*, 409 U.S. 63, 70, 175 U.S.P.Q. (BNA) 676 (1972). In other words, claims that require some kind of transformation of subject matter, which has been held to include intangible subject matter, such as data or signals, that are representative of or constitute physical activity or objects have been held to comply with Section 101. See, for example, *In re Warmerdam*, 31 U.S.P.Q.2d (BNA) 1754, 1759 n.5 (Fed. Cir. 1994) or *In re Schrader*, 22 F.3d 290, 295, 30 U.S.P.Q.2d (BNA) 1455, 1459 n.12 (Fed. Cir. 1994).

Thus, as expressly set forth in each of the independent claims, the claimed methods or system describe pattern discovery on an input sequence and transform an input sequence to derive a plurality of concatenated motifs, or transform motifs to derive redundant motifs. This transformation to concatenated or redundant motifs provides a useful, concrete and tangible result.

Applicants submit that each of the remaining claims are in full compliance with 35 U.S.C. §101, and accordingly, respectfully requests that the rejection under 35 U.S.C. §101 be withdrawn.

Section 112 Rejections

Claims 1-17 and 26 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter that applicant regards as the invention. Regarding claims 1 and 26, the Examiner asserts that it is unclear how the claim achieves the goal set out in the preamble (pattern discovery). The Examiner also notes the terms with insufficient antecedent basis

Regarding claims 1 and 26, Applicants note that the first motifs and concatenated motifs that result from the last step of the cited claims are patterns that

fulfill the goal of pattern discovery described in the preamble. Applicants also note that the claims have also been amended to correct the antecedent basis of the cited terms. Applicants believe that these amendments address the Examiner's concerns and respectfully request that the section 112 rejections be withdrawn.

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Prior Art and Double Patenting Rejections

Claims 1-2, 5 and 12 were rejected under 35 U.S.C. §102(b) as being anticipated by Myers et al. The Examiner also rejected claims 1, 2, 5, 6, 12-14, 16, and 17 on the ground of non-statutory obviousness-type double patenting as being unpatentable over claims 1, 3-5, 20, and 21 of United States Patent Number 6,571,230

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Claim 4 was not rejected on either of these bases. Claim 4 was merely "objected to" on formal grounds. Applicants have addressed all of the formal objections with regard to claim 4. In addition, Applicants have amended claim 4 to rewrite claim 4 in independent form including all of the limitations of the base claim 1 and intervening claim 3. In addition, the remaining dependent claims have been amended to depend from claim 4. No new matter is introduced. Corresponding Independent claims 16 and 17 have also been amended to incorporate the limitations of claims 3 and 4.

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All of the pending claims, i.e., Claims 2 and 4-17, are in condition for allowance and such favorable action is earnestly solicited.

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If any outstanding issues remain, or if the Examiner has any further suggestions for expediting allowance of this application, the Examiner is invited to contact the undersigned at the telephone number indicated below.

The Examiner's attention to this matter is appreciated.

Respectfully submitted,



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